

# THE COMPLETE SUITE

for the BBC Microcomputer



**INTER-SHEET  
INTER-CHART  
INTER-WORD\***  
**INTER-BASE\***

**The most comprehensive range of integrated ROMs  
for any microcomputer**

\*available soon!



**Computer Concepts**



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## INTER-BASE

The fourth main constituent of the integrated series is INTER-BASE, the database facility. Like the others, it can transfer data directly to and from other programs such as INTER-WORD and INTER-SHEET.

INTER-BASE performs on two levels. It has a friendly, easy to use menu driven level, operated from the main menu in a manner familiar to users of WORDWISE and other products in the INTER range. This allows editing, searching, browsing and printing of selected records of a database.

The second level is entirely different. We soon discovered the enormous potential of the built-in programming language concept with WORDWISE-PLUS. INTER-BASE takes the concept much further still, providing a database programming language more powerful than BASIC. It is a very simple matter to read and write records from database file, and manipulate them in practically any way with the programming language. There are very few restrictions on the type and size of data that can be stored and manipulated with the programming language..

We believe this is the most powerful database management program for ANY micro computer. Below is a brief list of technical specifications.

Variable lengths fields and records.

4 main data types:

Date .....	3 bytes
Floating point .....	5 bytes BBC BASIC format
Integer .....	4 bytes BBC BASIC format
8 bit general .....	Up to 32k bytes

The 8 bit data type is used to store SCII strings and any other data such as graphics, programs, etc.

**Two main index types:**

**SORT INDICES.** INTER-BASE allows indices to be built and then automatically updates them when any addition or alteration is made. Variable length key on any number of fields. Extremely fast search times via index. For example: A database of names and addresses with a sort index on names would be able, on average, to find a particular name out of 8000 in two disc lookups, and one name out of 160,000 in three disc lookups, i.e. in a second or two irrespective of database size.

**LIST INDICES.** These consist of a list of pointers to selected records, allowing very fast access to any particular item in the list, for example the 50th record.

MAX FIELD SIZE .....	32K
MAX No OF FIELDS .....	65536
MAX RECORD SIZE .....	65536 × 32K
MAX No OF RECORDS .....	10 million +

The above are theoretical limitations. In all cases the actual maximum will depend on available memory in RAM and on disc. But because of the very high theoretical limits it is possible to have records that consist of a very large number of small fields or a few very large fields. The number of records is limited by maximum file size. Using a hard disc, now at very reasonable prices, databases of nearly 20 Megabytes are quite practical.

## PROGRAMMING LANGUAGE

Interpreted. Over 130 keywords. Long variable names. No line numbers. Names procedures with full parameter passing. BASIC compatible. List handling. Long strings up to 32K bytes per string. Extensive string handling functions allowing parts of string to be deleted, moved, copied, searched for etc.. Multiple programs in memory at once (actually held in named strings). Full WORDWISE style string editor including search/replace` and block operations. The full-screen editor is used to edit programs or any string data, and the editor will work in any screen mode in any specified window on screen. The date handling allows full control over date format for printing and provides intelligent date input routines.

The programming language is fast and simple to use. Most BASIC commands and functions are supported, but with extended string and data handling features. Arrays or lists can be built up containing any data type including sub-lists. This allows multi-dimensional arrays and list processing.

Commands and functions are provided to allow records or fields to be read from a database file into an array, via indices if necessary. The record can then simply be manipulated with the programming language. Records can be written to the database file. Multiple databases may be opened at once allowing easy transfer between them.

These facilities allow the data to be manipulated in any possible way. There is practically no limit to what can be done with the programming language.

## INTEGRATION

Because INTER-BASE is part of a fully integrated suite of programs for the BBC it can directly transfer data to and from other programs in the series. This allows data to be imported and exported to and from the word processor INTER-WORD, the spreadsheet, INTER-SHEET. INTER-CHART also allows charts and graphs to be plotted from data from any INTER-program.

There are also a good range of utilities for reading data from other sources and other programs.

INTER-BASE works with all Acorn compatible Disc filing systems. There are advantages in obtaining the newer ADFS as this allows considerably more storage per disc and is much faster in certain operations.

Price: £59.00 + VAT

## INTER-WORD

There are two entirely different ways in which a word processor can work. WORDWISE and WORDWISE PLUS are one sort and these have a free-format-edit mode in which the text is entered and edited. While in this mode embedded commands are entered that control the final layout of the printed document, but while editing it is not possible to see what the final formatted layout will look like.

The alternative method attempts to show the format of the final printed document on screen at all times. This type of word processor is often referred to as "WYSIWYG" (What You See Is What You Get). INTER-WORD is of this type, but goes further than most.

INTER-WORD still retains many of the WORDWISE advantages, - it is very fast in operation and still very simple to use. Indeed this is probably the easiest-to-use word processor there has ever been. Anyone familiar with WORDWISE will find many similarities, for example the cursor keys and the main menu operate in a very similar fashion. The main difference is that embedded commands are no longer required to alter the format of the printed document.

'Rulers' are inserted into the text to control the margins and tabs. To alter these the user simply moves the cursor onto the ruler and drags the margin or tab indicator to the required position. The document is instantly re-formatted to the new layout.

INTER-WORD also shows the position of page breaks and headers and footers on screen at all times. Four types of text justification are available: normal left justified, right justified (fully indented), centred and fully justified (straight both margins). All of these are visible on screen while editing. Regions of text that are underlined or emboldened are also highlighted on screen.

The same mechanism for moving and copying marked sections of text exists as on WORDWISE. However, now, the marked section is always shown inverted on screen.

A number of 'pull-down' menus are also available while editing that allow simple alteration of a variety of options, such as screen colours, lines per page, 80 or 106 column screen modes, etc.

INTER-WORD only operates in 80 and our unique 106 column screen modes. Therefore on a normal B machine there is not much room for text and so it really is worthwhile obtaining a shadow RAM board for the machine. These allow INTER-WORD (and many other programs) to use the 80 column display modes with no reduction in the amount of workspace. Newer versions of BBC machines have such a shadow RAM facility built in, so all user RAM can be used for text storage.

### Features:

INTER-WORD is part of the only truly integrated family of programs for the BBC machine. It can directly transfer data to and from other packages such as the spreadsheet (INTER-SHEET) and database (INTER-BASE). This also allows multiple documents to be present in the machine at one time.

There are comprehensive search and replace facilities built-in.

It is very fast and easy to use on-screen editing and formatting in 'real time'. Although Wordwise files containing embedded commands cannot be transferred to INTER-WORD directly, a conversion facility will be supplied. INTER-WORD is fully compatible with the BBC model B, B+ and the new BBC Master machine. It is also fully compatible with the Watford Electronics and Aries shadow RAM boards, and all Acorn compatible disc filing systems (not for use with cassette systems).

Price £49.00 + VAT

Details in this leaflet are correct at time of printing but are subject to change before final release.

INTER-WORD and INTER-BASE are not expected to be available until March and May 1986 respectively.

ALL FOUR integrated products: INTER-SHEET, INTER-CHART, INTER-WORD and INTER-BASE will be made available as a single package. This will contain manuals for each and a single plug-in 'unit' occupying just ONE ROM SOCKET. The package price for all four will be less than the price for four purchased individually and of course, has the advantage of occupying one socket instead of six, but is unlikely to be available until Summer 1986.

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